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ABSTRACT

A "passive-active" mount includes an emanator-securement plate, a foundation-securement plate, at least one elastomeric "streamlined resilient element," and at least one collocated motion sensor-vibratory actuator pair. The mount brings to bear, sequentially and complementarily, passive vibration control followed by active vibration control. The passive vibration control is effectuated by one or more "streamlined resilient elements," each attributed with a "constant natural frequency" (CNF) property whereby such element is naturally predisposed to passively reducing vibration at a particular frequency band regardless of the extent of the loading, within certain limits, to which such element is being subjected. Cumulatively, the streamlined resilient element(s) passively reduce(s) the emanated vibration in CNF fashion before reaching the foundation-securement plate, whereupon the active vibration control is effectuated via one or more electrical feedback loops, each involving a processor/controller and a collocated sensor-actuator pair.

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